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#### PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

FLINT INK CORPORATION MIDDLEBURG HEIGHTS, OHIO OHD 000 817 247

FINAL REPORT

US EPA RECORDS CENTER REGION 5



#### Prepared for

# U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Waste Programs Enforcement Washington, DC 20460

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# EXECUTIVE SUMMARY CONFIDEN

# ENFORCEMENT CONFIDENTIAL

PRC Environmental Management, Inc. (PRC) performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the Flint Ink Corporation (Flint Ink) facility in Middleburg Heights, Ohio. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Attachment A to assist in prioritization of RCRA facilities for corrective action.

The Flint Ink facility manufactures water- and oil-based commercial and newspaper ink. The facility generates and manages the following nonhazardous wastestreams; waste ink, ink pigment dust, waste wash water, and ink sludge. All wastes are either reworked or disposed of off site. Because its product line is changing, the facility may soon generate unworkable ink waste (D001). The facility has operated at its current location since 1979. It occupies 16,520 square feet in a primarily industrial area and employs 14 people. The facility's regulatory status is that of a small-quantity generator with less-than-90-day storage. Flint Ink has leased the facility, a portion of an industrial park, from Harsax, Inc. since 1979. In 1989, Flint installed a 10,000-gallon concrete underground storage tank (UST) to store waste wash water before it was disposed of off site. The UST, out of service since 1983, was removed in May, 1989 under the supervision of a fire marshall and after notification of the Ohio Environmental Protection Agency (OEPA).

The PA/VSI identified the following five SWMUs at the facility:

Solid Waste Management Units

- 1. Satellite Accumulation Area
- 2. Drum Storage Area
- 3. Settling Tank
- 4. Dust Collector
- 5. Former Underground Storage Tank

PRC did not note any AOCs at the facility.

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The potential is low for a release of hazardous constituents to ground water, surface water, air and on-site soils from the SWMUs at this facility. The facility recycles most of its wash water and reworks its ink wastes. The facility manages a small volume of nonhazardous waste, and there have been no documented releases attributable to the Flint Ink facility. All current SWMUs are located inside a building with adequate containment in the form of a concrete floor and concrete walls.

There have been no documented releases of hazardous constituents from the Flint Ink facility, nor was any evidence of releases observed during the VSI. However, during the removal of the UST in 1989, a small amount of ground water contaminated with diesel fuel flowed into the tank from the outside. The UST removal was overseen by a fire department representative, and when the diesel fuel was detected, OEPA was informed. Water and sludge samples from the tank were found to be nonhazardous and contained no diesel fuel or diesel-fuel derivatives. It was not possible to take soil samples because of the high water table and the fact that the tank rested on bedrock. The fire department official conjectured that the diesel fuel came from some other leaking tank nearby, and OEPA authorized Flint Ink to backfill the open excavation with clean fill. At the time of the excavation, OEPA investigated possible nearby sources of the diesel fuel contamination and could find none.

Receptors of potential releases at the facility are primarily on-site workers, nearby residents, and other workers in the Middleburg Heights area. The facility is a tenant in an industrial park complex with no additional security besides general building security locks. All wastes are managed inside the building. Ground water is used as a drinking-water source in the area. The nearest drinking water well is located 2,000 feet east of the facility and is used for residential water supply. A small unnamed stream is located 5 yards south of the facility and flows west to a wetland and pond 0.4 miles northwest of the facility. The wetland and pond drain westward to Abram Creek, which flows north to the Rocky River.

PRC recommends that no further action be taken in relation to any SWMUs at the Flint Ink facility. PRC recommends that EPA consider further investigation of the presence of diesel fuel at SWMU 5 to determine possible off-site sources.

#### 1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC) received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has generally exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading-unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release to the environment of hazardous waste or constituents has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where such a release in the future is judged to be a strong possibility.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility.
- Obtain information on the operational history of the facility.
- Obtain information on releases from any units at the facility.
- Identify data gaps and other informational needs to be filled during the VSI.

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA.
- Identify releases not discovered during the PA.
- Provide a specific description of the environmental setting.
- Provide information on release pathways and the potential for releases to each medium.
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases.

The VSI includes interviewing appropriate facility staff, inspecting the entire facility to identify all SWMUs and AOCs, photographing all visible SWMUs, identifying evidence of releases, initially identifying potential sampling parameters and locations, if needed, and obtaining all information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the Flint Ink Corporation facility in Middleburg Heights, Ohio. The PA was completed on March 3, 1992. PRC gathered and reviewed information from the Ohio Environmental Protection Agency (OEPA) central and northeast district offices, and from EPA Region 5 RCRA files. The VSI was conducted on April 29, 1992. It included interviews with three facility representatives and a walk-through inspection of the facility. Five SWMUs and no AOCs were identified at the facility.

PRC completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is attached in Attachment A. The VSI is summarized and three inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C.

#### 2.0 FACILITY DESCRIPTION

This section describes the facility's location, past and present operations (including waste management practices), waste generating processes, history of documented releases, regulatory history, environmental setting, and receptors.

#### 2.1 FACILITY LOCATION

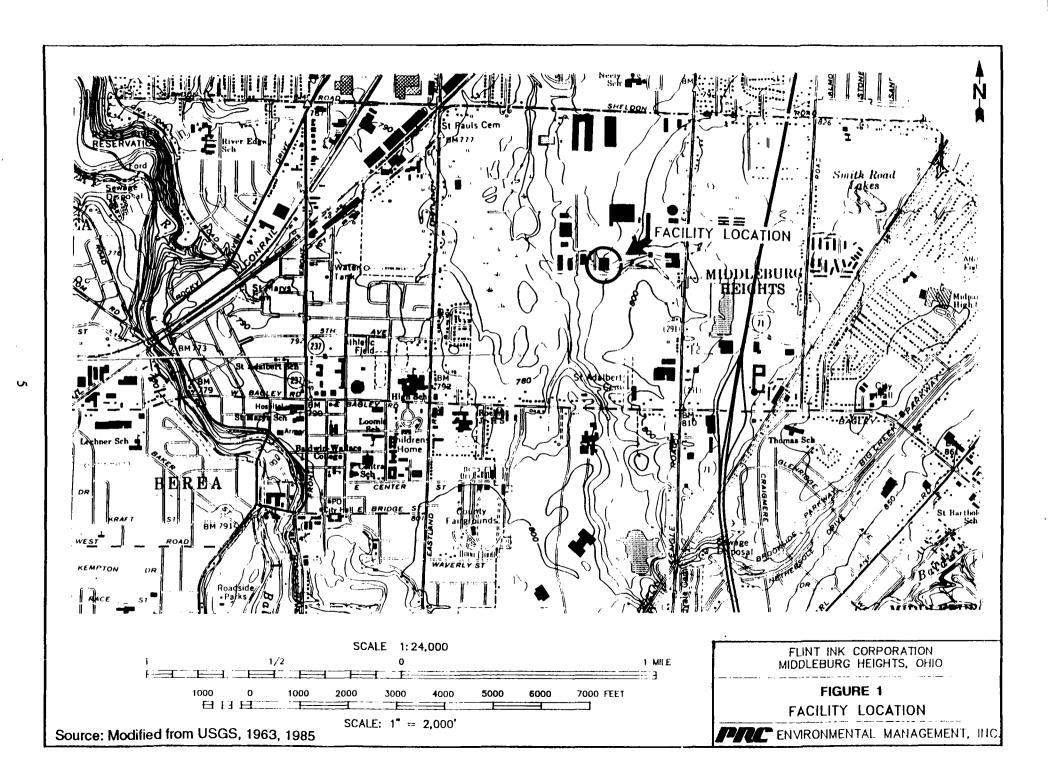
The Flint Ink facility is located at 17851 Englewood Drive in Middleburg Heights, Cuyahoga County, Ohio (latitude 41°22'054" N and longitude 81°49'042" W), as shown in Figure 1. The facility occupies 16,520 square feet in an industrial park complex. Flint Ink has operated at the site since 1979.

The facility is bordered on the north by Englewood Drive, on the east and west by similar industrial park buildings, and on the south by a small, unnamed stream and undeveloped vegetated terrain. There is no fence around the facility, and the only security measures are the locks on the entrances to the building.

#### 2.2 FACILITY OPERATIONS

The Flint Ink facility manufactures oil- and water-based inks. Since beginning operations in 1979, the facility has manufactured primarily oil-based inks for use in newspaper printing. The firm is changing its product line and soon will be manufacturing only water- and paste-based inks for use in commercial printing. All manufacturing and waste management activities occur inside the building.

Flint Ink manufactures ink by mixing together raw materials, such as dry pigments, oil or water, and a binding agent, and then grinding and milling them. Ink products then are pumped into drums or kits. Various mixing tanks, roller mills, and other manufacturing equipment are used. Before ink products are placed in the drums, they are tested in the quality control laboratory. Laboratory waste is recycled into the product, as are many other ink wastes that are generated. When the ink mixture is changed, the mixing tubs are cleaned with water, using a tub/pan washer. The wash water flows to an aboveground settling tank (SWMU 3) where solids are removed; the water then is reused. Between 1980 and 1983, wash water flowed to an underground storage tank (SWMU 5), which has since been removed. Raw materials are stored in



small containers and drums inside the building. The facility is replacing the old water-based tub washer with a new tub washer that uses a low flash-point solvent that is recycled within the unit.

Flint Ink employs about 14 people. The building has been divided into several small office areas, including the laboratory, and a large square production area 120 feet by 120 feet in size. Raw materials, products, and wastes are managed there. The parking lot is located on the north side of the building, and the loading dock area is on the south side of the building. Another tenant occupies the portion of the building to the west of the Flint Ink facility. The facility is in the east end of the building. There is an access road for the loading area adjacent to the east side of the building.

The waste management units at the facility include five areas. One satellite accumulation area (SWMU I) consists of a 55-gallon drum containing ink waste and is located in the final production area adjacent to the rollers. There is a drum storage area (SWMU 2) in the northeast section of the production room; the area can store up to four drums of waste from the satellite accumulation area, the settling tank, or the dust collector. The settling tank (SWMU 3) is located in the southwest corner of the production area, adjacent to the tub washer. The tank collects the wash water from the tub washer. A dust collector (SWMU 4), used to collect emissions from the ink mixing tanks, is next to the settling tank. The former underground storage tank (SWMU 5) is south of the building, just beyond the edge of the loading dock pavement.

SWMUs at the facility are identified in Table 1. The facility layout, including SWMUs, is shown in Figure 2. Flint Ink has leased the building from Harsax, Inc. since 1979 and was the first occupant to lease the space at the industrial park.

#### 2.3 WASTE GENERATING PROCESSES

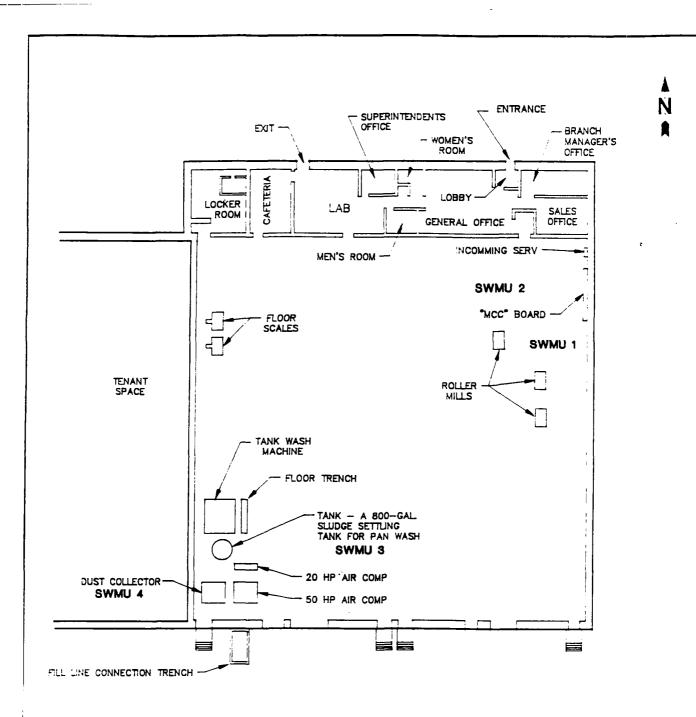
Currently, the primary waste streams generated at the Flint Ink facility are waste ink, ink pigment dust, waste wash water and ink sludge. These wastes are generated during the production of the ink formulas. Wastes generated at the facility are discussed below and summarized in Table 2. Information about specific waste generation rates was not available.

Inks are manufactured by mixing together raw materials, including dry pigments, oil or water, and a binding agent, and grinding or milling the materials. The resulting mixture is pumped into drums or kits. Nonhazardous ink pigment dust is generated from mixing raw

TABLE 1
SOLID WASTE MANAGEMENT UNITS (SWMU)

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit*	Status	
1	Satellite Accumulation Area	No	Active	
2	Drum Storage Area	Yes	Active	
3	Settling Tank	No	Active	
4	Dust Collector	No	Active	
5	Former Underground Storage Tank	Yes	Closed, inactive since April 12, 1983 removed in May, 1989	

<sup>\*</sup> A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B permit application.



#### SWMU 5

SWMU 1 SATELLITE ACCUMULATION AREA

SWMU 2 DRUM STORAGE AREA

SWMU 3 SETTLING TANK

SWMU 4 DUST COLLECTOR

SWMU 5 UNDERGROUND STORAGE TANK

15' 0 15' 30'

FLINT INK CORPORATION MIDDLEBURG HEIGHTS, OHIO

FIGURE 2
FACILITY LAYOUT

SOURCE: MODIFIED FROM FUNT INK CORPORATION FUNCTION FUNCT

SCALE: 1" = 30"

# TABLE 2

#### SOLID WASTES

Source	Primary Management Unit*
Ink mixers	SWMU 2, 4
Ink mixing, cleaning of rollers and grinders, off-specification ink, and laboratory samples	SWMU 1, 2
Tub washer	SWMU 2, 3, 5
Tub washer	SWMU 2, 3
	Ink mixers  Ink mixing, cleaning of rollers and grinders, off-specification ink, and laboratory samples  Tub washer

# Note:

- \* Primary management unit refers to a SWMU that currently manages or formerly managed the waste.
- \*\* Nonapplicable (NA) designates nonhazardous waste.
- \*\*\* Currently, waste inks do not exhibit any RCRA hazardous waste characteristics; however, Flint Ink may generate ignitable (D001) waste inks in the future.

materials in tanks. The dust is removed by a dust collector, SWMU 4. The ink pigment dust accumulates in the bottom of the funnel-shaped collector and is transferred to a 55-gallon drum in the drum storage area, SWMU 2, before disposal off site.

The manufacturing process generates three types of nonhazardous waste ink: quality control samples, off-specification ink, and contaminated ink from the cleaning of equipment. Before being packaged, nonhazardous inks are tested in the quality control laboratory. Quality control sample waste is put directly back into the product. Off-specification ink currently is reworked into other products, such as black ink. Once the ink mixture has been ground and milled and the ink formula is changed, the grinding and milling equipment is cleaned, resulting in ink waste mixed with a small amount of solvent cleaner that is used to clean the rollers. The ink waste is placed in the satellite accumulation drum, SWMU 1. Once the satellite accumulation drum is full, it is replaced, and the full drum is moved to the drum storage area, SWMU 2. From there, the ink waste is disposed of off site. Flint Ink generally has recycled all its waste ink by reusing the contaminated ink as a raw material. Because the facility will be manufacturing waterand paste-based inks for commercial use instead of newspaper ink, a Flint Ink representative has indicated that some waste ink may no longer be reusable. A Flint Ink representative stated that some of the new ink wastes may exhibit the ignitability characteristic (D001).

Flint Ink cleans the mixing tubs in a tub washer. The tub washer produces waste wash water that flows to a settling tank (SWMU 3). Between 1980 and 1983, wash water flowed through an underground pipe to an former underground storage tank (UST; SWMU 5), which has since been removed. Flint Ink tested the wash water and found it nonhazardous. From 1980 to 1983, wash water was pumped from the UST and taken off site by tanker truck for disposal, according to a Flint Ink representative.

Since 1983, wash water flows from the tub washer to a settling tank, SWMU 3, where the residue from ink mixing settles to the bottom of the tank. The nonhazardous ink sludge is siphoned from the bottom of the tank, placed in drums that are stored in the drum storage area, SWMU 2, and sent off site for disposal. Clarified water is reused to clean the mixing tubs.

All the wastes from the facility are placed in drums and disposed of off site. The transporter is Van Waters & Rogers, Inc., and the disposal company is Systech.

#### 2.4 HISTORY OF DOCUMENTED RELEASES

There have been no documented releases of hazardous wastes or constituents to ground water, surface water, air, or on-site soils attributable to the Flint Ink facility.

The presence at the site of ground water contaminated with diesel fuel has been documented; however, this was presumed attributable to a leaking former underground storage tank nearby (Flint Ink, 1989). When the Flint Ink former underground storage tank (SWMU 5) was removed on May 19, 1989, 5 to 10 gallons of ground water contaminated with diesel fuel flowed into the tank during the excavation and removal process. A local fire department representative was on hand to oversee the removal and speculated that the diesel fuel may have come from a nearby underground storage tank. OEPA was contacted, and an inspector visited the facility. The OEPA inspector investigated possible sources of the contamination and could not locate any potential sources nearby. Because the flow did not continue and the amount of the initial contamination seemed small, no further investigation of the source was made (Irwin, 1992). The inspector gave approval to backfill the excavation with clean fill (Flint Ink, 1989). Because Flint Ink never stored or used diesel fuel at the site, the release was not attributed to the facility (Flint Ink, 1990). Flint representatives stated that water and sludge samples from the tank were found to be nonhazardous and contained no diesel fuel or diesel-fuel derivatives. It was not possible to take soil samples because of the high water table and the fact that the tank rested on bedrock.

#### 2.5 REGULATORY HISTORY

The Flint Ink Corporation submitted a notification of hazardous waste activity to EPA on August 15, 1980 (Flint Ink, 1980a). The facility submitted a RCRA Part A permit application on November 18, 1980 (Flint Ink, 1980b) and revisions on February 25, 1981 (Flint Ink, 1981). The revised application identified storage in containers (up to 55 gallons) and storage in tanks (up to 5,000 gallons). The revised Part A permit application submitted in February 25, 1981 states that the facility generates 162,000 pounds of waste annually, of which hazardous constituents constitute a very small component (Flint Ink, 1980b, 1981). The Part A application listed the following wastes: solvent or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead (K086); ignitable waste (D001); corrosive solid waste (D002); and waste exhibiting the Extraction Procedure toxicity characteristic for barium (D005). At the time of the VSI, facility

representatives nevertheless stated that all the waste has been tested and that it all tested nonhazardous.

On April 22, 1982, EPA notified Flint Ink that the facility was authorized to operate a hazardous waste management facility under interim status (EPA, 1982). In December 1982, Flint Ink notified OEPA that the UST (SWMU 5) no longer was being used to store waste and that all ink wastes were placed in drums and shipped off site in less than 90 days (Flint Ink, 1982). EPA requested further information concerning the permit withdrawal request in April, 1983 (EPA, 1983). In July 1983, Flint Ink provided the requested information, including an outline of a closure procedure for the UST (Flint Ink, 1983). On September 27, 1984, EPA acknowledged Flint Ink's change in status to that of a generator storing wastes for less than 90 days (EPA, 1984).

The facility has closed the UST (SWMU 5). Flint Ink submitted a description of the closure procedure along with a formal Part A permit withdrawal request (Flint Ink, 1983). No documentation was found pertaining to the state agency or EPA approval of the closure; however, the change in status was granted (EPA, 1984). The facility currently operates as a small-quantity generator. No evidence was found in the files that the Flint Ink facility has had RCRA compliance problems.

The facility is not required to have operating air permits. The facility has no documented history of odor complaints from area residents. In addition, the facility is not required to have a National Pollutant Discharge Elimination System (NPDES) permit or to meet pretreatment standards. Finally, information obtained on the facility did not indicate that the facility has undergone any CERCLA enforcement activities.

#### 2.6 ENVIRONMENTAL SETTING

This section describes the climate, flood plain and surface water, geology and soils, and ground water in the vicinity of the Flint Ink facility.

#### 2.6.1 Climate

The climate of Cuyahoga County is continental. The average daily temperature is 50 degrees Fahrenheit (°F). The lowest average daily temperature is 27° F in January. The highest average daily temperature is 72° F in July. In summer, northern areas nearest Lake Erie are

markedly colder than the rest of the county. The average relative humidity in mid-afternoon is about 60 percent. The total annual precipitation for the county is 35 inches. The mean annual lake evaporation is about 31 inches (U.S. Geological Survey [USGS], 1978). The 1-year, 24-hour maximum rainfall is 4.0 inches. The prevailing wind is from the south. Average wind speed is highest in January at 13 miles per hour (U.S. Soil Conservation Service [USSCS], 1980).

Precipitation is well distributed during the year. Sixty percent of the total annual precipitation usually falls from April to September. Snow squalls are frequent from late fall through winter, and total snowfall normally is heavy. Early in the growing season, crop development is slowed by frequent cool winds from Lake Erie. Fall winds that blow from a relatively warm Lake Erie delay the first fall freeze and prolong the growing season for crops. The average growing season in Cuyahoga County is about 225 days (USSCS, 1980).

#### 2.6.2 Flood Plain and Surface Water

The Flint Ink facility is not located in a 100-year flood plain (USGS, 1974). The nearest surface-water body, an unnamed stream, is located about 5 yards south of the facility. The stream flows west through a semipermanent palustrine wetland into a pond 1,750 feet northwest of the facility. The pond is intermittently exposed and drains northwest to Abram Creek, which flows northwest and joins the Rocky River 4 miles from the facility. The Rocky River ultimately flows northeast into Lake Erie (USGS, 1963). Abram Creek is a warm water aquatic life habitat and is used for agricultural, industrial, and primary contact recreational purposes (Crowell, 1992). The Rocky River is a state resource water with a warm water habitat and is used for agricultural, industrial, and primary contact recreational purposes (Crowell, 1992). Surface-water drainage at the facility is to the south towards the unnamed stream.

#### 2.6.3 Geology and Soils

Site-specific geologic information was limited; therefore, regional information is presented. The exposed rocks of the area are of sedimentary origin and range in age from Late Devonian to Pleistocene. The rocks fall into two general classes: indurated stratified rocks of Late Devonian and early Carboniferous age and unconsolidated surficial deposits of Pleistocene age. The surficial deposits consists mainly of Pleistocene glacial and lacustrine deposits and Recent alluvium. These Pleistocene deposits form a blanket that ranges in thickness from 0 to 440 feet. The indurated rocks underlie the Pleistocene deposits and crop out in the beds and gorges of

streams, quarries, and other excavations. The total thickness of Paleozoic strata exposed in this area is about 750 deep. These beds consist of shale, sandstone, and conglomerate of Late Devonian, Early Mississippian, and Early Pennsylvanian age (Cushing and others, 1931).

The uppermost formation is the Sharon conglomerate, of Lower Pennsylvanian age. It is the youngest exposed Paleozoic rock in this area and is the capstone formation of the plateau across northeastern Ohio. Below the Sharon conglomerate, other formations include the Orangeville and Meadville shales from the Mississippian age; the Cleveland and Bedford shales, classed by some as of Upper Devonian and by others as of Lower Mississippian age; and the Chagrin shale of Late Upper Devonian age (Cushing and others, 1931). Figure 3 shows these rocks as they occur under Cleveland.

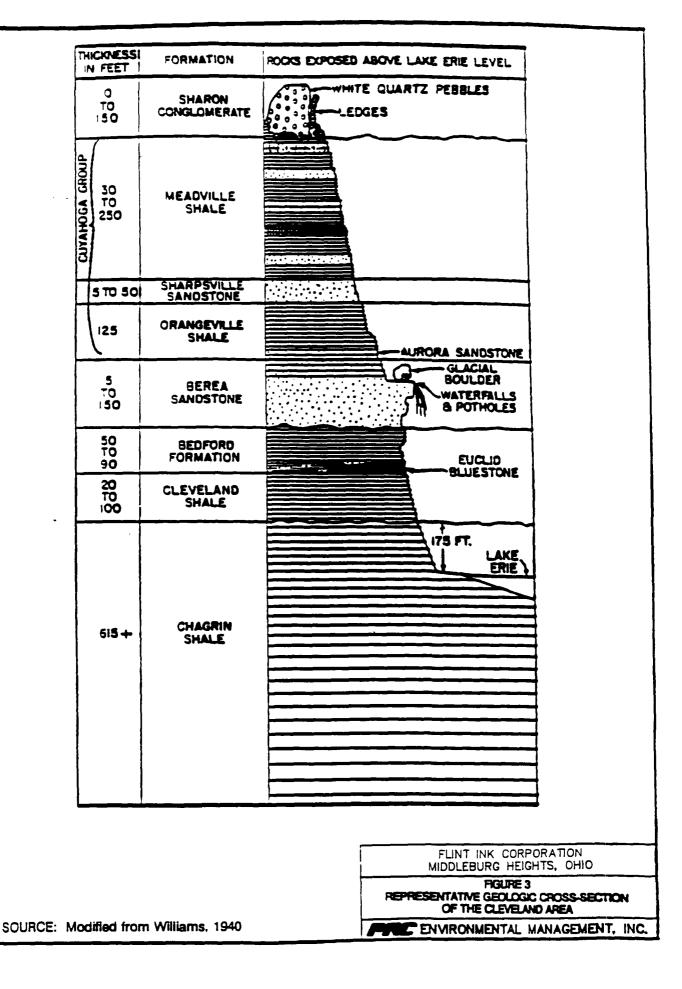
Exposed rocks are underlain by large thicknesses of Devonian, Silurian, and Ordovician formations.

Bedrock in the area of the site is close to the surface. When the former underground storage tank was removed, the tank was found to be resting on bedrock (Flint Ink, 1989). Well log information for wells within 0.5 mile of the site indicate yellow, blue, brown, and sandy clay, gravel, sandstone, and red shale in the soils near the facility (Ohio Department of Natural Resources, 1955-1964).

#### 2.6.4 Ground Water

Specific information about the ground water beneath the site was limited. A general description of ground water for the area surrounding the site follows. In the glacial drift, there are many alternations of sand and gravel with clay that are capable of storing large quantities of water. The contact of the glacial drift with the underlying Bedford, Orangeville, and Meadville shales is also a source of water, especially where the drift is thick and consists largely of sand and gravel. There also are water-bearing sandstone strata within the Cleveland and Chagrin shales (Cushing and others, 1931).

Ground water at the site is believed to be about 6 feet below the ground surface. When the former underground storage tank (SWMU 5) was removed, they discovered ground water at 6 feet that was contaminated with diesel fuel (Flint Ink, 1989). Well log information from nearby wells indicate ground water between 16 and 142 feet in depth with an average depth of 33 to 35



feet (Ohio Department of Natural Resources, 1955-1964).

#### 2.7 RECEPTORS

The Flint Ink facility occupies 16,520 square feet of an industrial park in a mixed-use area in Middleburg Heights, Ohio. Middleburg Heights has a population of about 14,980 (U.S. Department of Commerce, 1990).

The facility is bordered on the north by Englewood Drive and by other industrial park buildings, on the west by another tenant in the same building, on the south by a small stream and undeveloped, possibly formerly agricultural land, and on the east by an access road and another industrial park building. The nearest schools, Neeley School to the northeast and Roelht Junior High School to the southwest, are located about 4,000 feet from the facility. Control of access to the facility consists of locks on the doors of the building.

The nearest surface-water body, an unnamed stream, is located directly adjacent to the southwest side of the facility, within 5 yards of the edge of the pavement in the loading dock area. The stream drains to a nearby wetland and pond located about 1,750 feet northwest of the facility. The pond drains northwest to Abram Creek, which flows northwest to the Rocky River, which in turn flows northward to Lake Erie. The point where the tributary from the pond joins the Rocky River is approximately 3 miles north-northwest of the facility. A portion of the Rocky River, upstream from the outlet of the pond, is 2 miles directly west of the facility. Other surface water bodies in the area include Smith Road Lakes -- two small lakes located about 1 mile northeast of the facility.

Ground water is used as a drinking-water supply. The nearest drinking-water well is located 2,000 feet east of the facility and is used for residential water supply. The direction of the ground-water flow is not known.

No sensitive environments are located on the site. The nearest wetland area is located less than 2,000 feet west of the facility. The nearest residences are 0.5 miles east of the facility.

#### 3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the five SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC observations.

SWMU 1

Satellite Accumulation Area

Unit Description:

The satellite accumulation area is located indoors on the concrete floor of the east side of the building. The unit consists of one 55gallon open drum situated next to the milling area. The ink wastes from the cleaning of the milling machines and rollers are placed into the drum. When the drum is full, it is sealed and moved to the drum storage area (SWMU 2). There are no floor drains in the area of the unit.

Date of Startup:

The unit began operation on July 1, 1979.

Date of Closure:

The unit is active.

Wastes Managed:

This unit manages waste ink. In the past, the waste ink has been tested and been determined nonhazardous; however, the new, water- and paste-based ink waste that the facility will be generating may exhibit the ignitability characteristic (D001). Full drums of waste ink are transferred to SWMU 2 before disposal off site.

Release Controls:

The unit is located inside a building that has a concrete floor and concrete walls. There are no floor drains in the area of the unit.

History of Documented

Releases:

No releases from this SWMU have been documented.

Observations:

The unit contained one intact, uncovered, 55-gallon drum that was about three-quarters full of a dark, thick liquid, primarily ink waste. The floor and walls of the unit appear to be in good condition, with occasional small cracks in the floor. No evidence of a release was noted.

SWMU 2

Drum Storage Area

Unit Description:

The drum storage area is located indoors on the concrete floor in the northeast area of the building. The unit stores sealed drums of waste for off-site disposal. Drums of waste ink from the satellite accumulation area (SWMU 1), sludge and waste wash water from the settling tank (SWMU 3), and ink pigment from the dust collector (SWMU 4) are stored in the unit. The unit consists of wooden pallets that hold a maximum of four sealed drums. There were no floor drains in the area near the unit.

Date of Startup: The unit began operation on July 1, 1979.

Date of Closure: The unit is active.

Wastes Managed: The unit manages drums of waste ink (D001) accumulated in

SWMU 1, nonhazardous ink pigment dust accumulated in SWMU 4, nonhazardous waste wash water accumulated in SWMU 3, and nonhazardous ink sludge accumulated in SWMU 3. All wastes from this unit are transported off site for disposal by Van Waters &

Rogers, Inc.

Release Controls: The unit is located indoors in a building that has a concrete floor

and concrete walls. There are no floors drains in the area of the

unit.

History of Documented

Releases: No releases from this SWMU have been documented.

Observations: The unit contained four intact sealed drums on a wooden pallet.

The drums appeared to be in good condition with no visible leaks or cracks. The floor and walls of the unit appeared to be in good

condition. No evidence of a release was noted.

SWMU 3 Settling Tank

Unit Description: The settling tank is located indoors in the southwest corner of the

facility. The unit receives waste wash water from the tub washer. The sludge settles out of the wash water to the bottom of the tank. The sludge is then drained out and placed in drums, stored in the

drum storage area, SWMU 2, and disposed of off site as

nonhazardous waste. The water is reused in the tub washer. The unit consists of an 800-gallon funnel-bottomed metal tank, resting on four legs approximately four feet tall. The accumulated sludge is drained out through the bottom of the tank into a drum or

container. The wash water from the tank is pumped out and either

reused or disposed of.

Date of Startup: The unit began operation on July 1, 1979.

Date of Closure: The unit is active.

Wastes Managed: The unit manages nonhazardous waste wash water and

nonhazardous ink sludge. Drums of these wastes are transferred to

SWMU 2 before disposal off site.

Release Controls: The unit is located indoors in a building that has a concrete floor

and concrete walls. There are no floor drains in the area of the unit. A concrete floor trench, a component of the tub washer

system, is located near the settling tank.

History of Documented

Releases:

No releases from this SWMU have been documented.

Observations:

The contents of the unit were not examined. The unit appeared to be in good condition, with no visible cracks. The floor and walls appeared to be in good condition. No evidence of a release was noted.

SWMU 4

**Dust Collector** 

Unit Description:

The dust collector is located indoors in the southwest corner of the facility, adjacent to the settling tank (SWMU 3). The dust collector draws air in through the top and collects airborne particles, such as ink pigment dust from the mixing tanks, in the bottom of the collector. The nonhazardous dust is removed from the bottom of the collector, placed in 55-gallon drums, stored in SWMU2, and then disposed of off site.

Date of Startup:

The unit began operation on July 1, 1979.

Date of Closure:

The unit is active.

Wastes Managed:

The unit manages nonhazardous ink pigment dust. These wastes are transferred to SWMU 2 before disposal off site.

Release Controls:

The unit is located indoors in a building that has a concrete floor and concrete walls. There are no floor drains in the area of the unit.

History of Documented

Releases:

No releases from this SWMU have been documented.

Observations:

The contents of the unit were not examined. The unit appeared to be in good condition, with no visible cracks. The floor and walls appeared to be in good condition. No evidence of a release was noted.

SWMU 5

Former Underground Storage Tank

Unit Description:

The former underground storage tank was located outside the building. The 10,000-gallon tank was used from 1980 to 1983 to store used wash water from the tub washer. The nonhazardous wash water from the tub washer was piped to the unit by underground piping. The nonhazardous wash water was pumped out by vacuum and disposed of off site. The unit was constructed of 12-inch-thick concrete, with a concrete cover. See photographs No. 1 through 3.

Date of Startup:

The unit began operation in 1980.

Date of Closure:

The unit has been inactive since April 12, 1983 and was removed on

May 19, 1989.

Wastes Managed:

The unit managed nonhazardous waste wash water from the tub

washer machine.

Release Controls:

The unit had no secondary containment or leak detection devices.

History of Documented

Releases:

Although no releases from this SWMU have been documented, during the tank removal, ground water contaminated with diesel

fuel was noted in the area of the excavation.

Observations:

The unit has been removed. The former location of the unit is a few yards from an unnamed stream. There are miscellaneous small pieces of rubble and debris in the area. No evidence of any release

was visible.

# 4.0 AREAS OF CONCERN

No AOCs were identified during the PA/VSI.

RELEASED 1999
DATE
RIN # 439-99
INITIALS MV

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#### 5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified five SWMUs and no AOCs at the Flint Ink facility. Background information on the facility's location, operations, waste generating processes, history of documented releases, regulatory history, environmental setting, and receptors is presented in Section 2.0 SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. AOCs are discussed in Section 4.0. Following are PRC's conclusions and recommendations for each SWMU. Table 3 summarizes the SWMUs at the Flint Ink facility and recommended further actions.

SWMU 1

Satellite Accumulation Area

Conclusions:

The unit manages waste ink from the cleaning of the rollers and grinders used in the ink refining process. The unit has containment in the form of the concrete walls and floor of the building. No releases from the unit have been documented. The unit has a low potential for release to ground water, surface water, air, and on-site soil.

Recommendations:

No action is recommended.

SWMU 2

Drum Storage Area

Conclusions:

The unit manages drums of waste ink, ink pigment dust, waste wash water, and ink sludge. The unit has containment in the form of the concrete walls and floor of the building. No releases from the unit have been

documented. The unit has a low potential for release to ground water,

surface water, air, and on-site soil.

Recommendations:

No action is recommended.

SWMU 3

Settling Tank

Conclusions:

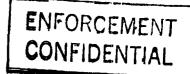
The unit manages waste wash water and ink sludge from the tub washer. The unit has containment in the form of the concrete walls and floor of the building. No releases from the unit have been documented. The unit has a low potential for release to ground water, surface water, air, and on-site

soil.

Recommendations:

No action is recommended.

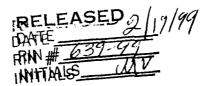
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## TABLE 3

## **SWMU SUMMARY**

	SWMU	Dates of Operation	Evidence of Release	Recommended Further Action
1.	Satellite Accumulation Area	1979 - Present	None	None
2.	Drum Storage Area	1979 - Present	None	None
3.	Settling Tank	1979 - Present	None	None
4.	<b>Dust Collector</b>	1979 - Present	None	None
5.	Former Underground Storage Tank	1980 - 1983	None attributed to Flint Ink. Diesel fuel contaminated water discovered during UST removal.	Recommend sampling of ground and surface water to determine whether contamination with diesel fuel exists



**ENFORCEMENT** CONFIDENTIAL

SWMU 4

**Dust Collector** 

Conclusions:

The unit manages ink pigment dust by filtering from the air ink pigment dust that is caused by the mixing of the ink ingredients. The unit has containment in the form of the concrete walls and floor of the building. No releases from this unit have been documented. The unit has a low potential for release to ground water, surface water, air, and on-site soil.

Recommendations:

No action is recommended.

SWMU 5

Former Underground Storage Tank

Conclusions:

The unit managed waste wash water from the tub washer. The unit has not been active since 1983 and was removed in 1989. At the time of removal, the waste wash water contained in the tank tested nonhazardous, as did the contents and rubble from the tank. During removal, from 5 to 10 gallons of ground water contaminated with diesel fuel flowed into the tank. It was suggested by the supervising fire department representative that the diesel fuel could have come from some other leaking underground storage tank. OEPA investigated possible sources of the contamination and could not find a source. Because of the small quantity of contaminated ground water and the failure to identify another apparent source, OEPA authorized the filling of the excavation. No releases from the Flint Ink former

underground storage tank have been documented. The former unit has zero

potential for release to ground water, surface water, air, and on-site soil.

Recommendations:

PRC recommends that the owner of the facility, Harsax, Inc., undertake ground- and surface-water sampling in the area of the industrial park to determine whether there is further diesel fuel contamination of ground water, the unnamed stream that runs behind the facility, or the adjacent wetlands to the west of the property and to identify probable source(s) of

the contamination.

#### **REFERENCES**

- Crowell, Hugh, 1992. Telephone conversation between Mr. Crowell, Ohio Environmental Protection Agency (OEPA), (614) 644-2152, and Deborah Lyne, PRC Environmental Management, Inc. (PRC), June 29.
- Cushing, H.P. Frank Leverett, and Frank R. Van Horn. 1931. Geology and Minerals Resources of the Cleveland District, Ohio. U.S. Geological Survey Bulletin 818.
- Flint Ink Corporation (Flint Ink), 1980a. RCRA Notification of Hazardous Waste Activity submitted to EPA, August 15.
- Flint Ink. 1980b. RCRA Part A permit application submitted to EPA, November 18.
- Flint Ink 1981. Revisions to RCRA Part A permit application submitted to EPA, February 25.
- Flint Ink, 1982. Letter to OEPA notifying it of less-than-90-day storage of wastes, December 2.
- Flint Ink, 1983. Letter to U.S. Environmental Protection Agency (EPA), clarifying the permit application withdrawal request, and including a closure outline, July 13.
- Flint Ink, 1989. Letter from Flint Ink to Fire Chief Dave Bannerman, Middleburg Heights Fire Department, discussing the tank removal, October 23.
- Flint Ink, 1990. Letter from Flint Ink to OEPA, discussing the problems encountered during the tank removal, July 31.
- Irwin, James, 1992. Telephone conversation between Mr. Irwin, OEPA, (216) 425-9171, and Deborah Lyne, PRC, June 1.
- Ohio Department of Natural Resources, 1955-1964. Well logs and drilling reports.
- U.S. Department of Commerce, Bureau of the Census, 1990. East North Central Local Population Estimates, March.
- U.S. Environmental Protection Agency (EPA), 1982. Letter to Flint Ink notifying facility of approval to operate under interim status, April 22.
- EPA, 1983. Letter to Flint Ink, requesting more information on permit withdrawal request, April 18.
- EPA, 1984. Letter to Flint Ink, acknowledging change in status to generator storing less than 90 days, September 27.
- U.S. Geological Survey (USGS), 1963. Topographic map, photorevised 1985, Lakewood quadrangle, Ohio.
- USGS, 1974. Flood-Prone Area Maps.
- USGS, 1978. Summary Appraisals of the Nation's Ground-Water Resources -- Great Lake Region (Geological Survey Professional Paper 813-J).

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ATTACHMENT A

EPA PRELIMINARY ASSESSMENT FORM 2070-12



# POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT

DENTIFICATION							
J: STATE	02 SITE NUMBER						

II. SITE NAME AND LOCATION							
01 SITE NAME (Legal, common, or descriptive name of are Flint Ink Corporation	"	17851 Englewood Drive					
03 CITY 04 STATE 05 ZIP CODE 06 COUNTY 07 COUNTY 08 CONG							
Middleburg Heights		OH	44130	Cuyahoga	CODE	DIST	
	<del></del>			<u> </u>	035	.0	
(	LONGITUDE 81*49'42" W						
10 DIRECTIONS TO SITE (Starting from nearest public re	oad)		·				
From Cleveland, south on interstate 71, exit a	at Bagley Road	west, right on E	ingle Road, le	ft on Englewo	od Drive		
					· · · · · · · · · · · · · · · · · · ·	<del></del>	
III. RESPONSIBLE PARTIES							
01 OWNER // known		I I	T (Business, men	ing residential)			
Harsax, Inc		6908	Engle Road		·		
O3 CITY		04 STATE		06 TELEPHONE			
Middleburg Heights		ОН	44130	(216) 243	3-5500 	··	
07 OPERATOR (If known and different from owner)			T (Buaness, men				
Flint Inic Corporation		1785	Englewood I	Drive			
O9 CITY		10 STATE	11 ZIP CODE	12 TELEPHONE			
Middleburg Heights	<del></del>	ОН	44130	(216) 243	3-0800		
13 TYPE OF OWNERSHIP (Check ane)  OLA. PRIVATE D 8. FEDERAL:		5.0.074		. COUNTY	= =		
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D F. OTHER	<del></del>	G. UNK	NOWN				
(Specify)	<del></del>		··		······································	<del> </del>	
14. OWNER/OPERATOR NOTIFICATION ON FILE (Check all QL A. RCRA 3010 DATE RECEIVED: 8/15/80 D		ROLLED WASTE SIT	E (CERCIA 102	-I DATE BECEIV	en.	C. NONE	
MONTH DAY YEAR			e reened ros	E DATE RECEIV	MONTH DAY		
IV. CHARACTERIZATION OF POTENTIAL HAZAF	RD						
01 ON SITE INSPECTION BY (Check all I	thet apply)						
C A. EPA	CK B. EF	A CONTRACTOR	C. STATE	0.0	. OTHER CONTR	ACTOR	
·	E. LOCAL HEALT	H OFFICIAL	F. OTHER:				
D NO CONTRACTOR	NAME(S)-PRC	Environmental M	lanagement is	(Spe	CIV)		
02 SITE STATUS (Check one)		03 YEARS OF OP			<del> </del>		
B A ACTIVE U B. INACTIVE U C.UNKN	OWN	- C					
		1979 present UNKNOWN					
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, K	NOME OR ALLEC		TEAR ENDING				
OF DESCRIPTION OF SUBSTANCES POSSIBLT PRESENT, R	NOWN, ON ALLEC	eD.					
Ink waste, ink pigment dust, waste washwater	r, ink sludge.						
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONME	NT AND/OR BOR	H A TION		<del></del>			
OF DESCRIPTION OF POTENTIAL PROPERTY TO CHANGING	an Alexan rore	Carron					
Groundwater contaminated with diesel was dis	scovered during	the removal of	the undergrou	und storage tar	ik; however, t	he contamination was	
not attributed to Flint Ink. The amount of co	ontaminated gro	undwater was sr	nall, 5-10 gall	ons, and no no	earby sources o	could be found.	
					-		
V. PRIORITY ASSESSMENT							
01 PRIORITY FOR INSPECTION (Check one. If high or medi	um a checked, co	molete Pert 2 · Wes	te information an	d Part 3 - Descrip	tion of Hazardous	Conditions and Incidents.)	
D. A. HIGH     D. B. MEDIUM     EL C. LOW     D. NONE  (Inspection required promptly) (Inspection required) (Inspect on time-evaluable basis) (No further action needed; complete current disposition form)							
(Inspection required promptly) (Inspection required)	IMSpect	on time-eveilable be:	es ing runne	ection needed; C	STORES CONTROL	and the same of th	
VI. INFORMATION AVAILABLE FROM	, <del></del>		<del> </del>				
02.01 (1980) 01980					03 TELEPHONE NUMBER (312) 886-4448		
Revair idealu 0.3. EFA							
04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORG	ANIZATION	07 TELEPHON	_	08 DATE	
Deborah Lyne						) (M6/10/97	
35551211, 27,115	ļ		PRC:	(703)	883-8408	U6/ 10/ 92 MONTH DAY YEAR	

ATTACHMENT B

**VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS** 

#### **VISUAL SITE INSPECTION SUMMARY**

Flint Ink Corporation Cleveland, Ohio OHD 000 817 247

Date:

April 29, 1992

Facility Representatives:

Elizabeth Boyer, Environmental Specialist, Flint Ink Corporation

Terry Everiss, Branch Manager

Weston S. Moehle, Engineering Manager

Inspection Team:

David Phillips, PRC Environmental Management, Inc. (PRC).

Deborah Lyne, PRC

Photographer:

Deborah Lyne, PRC

Weather Conditions:

Calm, sunny, temperature about 50°F

Summary of Activities:

The visual site inspection (VSI) began at 9:20 a.m. with an introductory meeting. The inspection team discussed the purpose of the VSI and the agenda for the visit. Facility representatives then discussed the Flint Ink facility's past and current operations, solid wastes generated, and release history. Most of the information was exchanged on a question-and-answer basis. Flint Ink representatives provided layout and correspondence concerning the removal of the former underground storage tank.

The VSI tour began at 10:00 a.m. Ms. Boyer discussed specific operations conducted at each area as we walked through the facility. The tour began as we passed through the offices and laboratory to the mixing area. We inspected the milling area, the drum storage area, the tank cleaning area, the settling tank, and the dust collector. We proceeded outside to inspect the location of the former underground storage tank. Photographs of each SWMU were taken; however, those taken inside the facility did not develop. The facility tour concluded at approximately 10:25 a.m. PRC conducted a brief exit interview with Ms. Boyer and Mr. Moehle before leaving the facility at approximately 10:41.

After leaving the facility, the PRC inspection team drove around part of the industrial park in order to trace the path of the small stream located behind the Flint Ink facility. The stream seemed to flow into a wetland area adjacent to the industrial complex.



Photograph No. Orientation:

West

Description: Location of former underground storage tank Location: SWMU 5 April 29, 1992 Date:



Photograph No.

Orientation: South

Description: Location of former underground storage tank Location: SWMU 5

April 29, 1992 Date:



Photograph No. Orientation:

3 East

Description: Location of former underground storage tank Location: SWMU 5 Date: April 29, 1992

ATTACHMENT C
VISUAL SITE INSPECTION FIELD NOTES

150.) David Swell in 4-29-92 1 18 4-29-92 Arrived at the First facility at was found in the tank. Tank 9:20cm met with thras hours is over up and Boyer and Was Mochbe of set on plantic in parking lot Flint Inc. Weather conditions. Het bedrock when exmoving the are samy SOF. Introduced, tank. No soil sampling. Concrete ourselves and explained the and solids (from inside of tank) purpose of the inspection. were sampled and determined to Facility Operations & History. be nonliggardour OEPA as 1979 Started up - manufactured fine marshal allowed Flint to unit of concern was an UST - clean fill Diesel fuel pro-10,000 gel concrete tank - work 40 bably come from upgradent from tab wooher-waste may have source. Tub washer is used to been high of pH- pumped out clean tubs (used to hold int by vacum and desposed aff site informulations). Currently, tab Stopped operating bank in 1883 washwater is either disposed pulled tank in 1989-12 inch thick into the city sewer of containe W concrete cover ground to a reged and desposed of site. infeltration along w/ diesel ful Van Waters transporter and

D8 4-24-92 153) Systechia the altimate disposer med to hold waster until May generate some ignitable disposal. Claudian frondes 40 (2001) waster - production han supply. Flent leaves set gone from newspaper into to from Harday Inc. No discharge commercial into probability that of tab waher H. 6- to sewer. som of the commercial inks may Future generation of timese 150 not be able to be seworked and should not occur due to suitch there need to be disposed Size over to a new tub worker that of facility 78,000 ft, 14 employed used a low flash materal that for sal tank used to settle is regaled with the unit Com remove solids and rease 40 pleted pre tour buffing at 10:00m in procese. Solide are don- Kegan tour at 10:05 am. Open hazardows and drasored off spare wanhouse. Drums containing rete. Dust collector used to waster, concrete floor, no diaces, Collect enissions from MX: y small cachs in concrete, no spells tanks. Dast removed is not noted in dum storage area. Site of the ald and new tub washer hazardour, Contamerzed and disposed off-site. Container Floor trench to collect spills near Storage area monde plant 15 lonit, new tab worker (blue color)

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33105 SCHOOLCRAFT ROAD LIVONIA, MI 48150 (313) 458-7500 FAX: (313) 458-1514

WESTON S. MOEHLE Engineering Manager

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